

**Amendments to the Claims:**

The listing of claims will replace all prior versions and listing of claims in the application:

**Listing of claims:**

1. (Presently Amended) An electronic digital image processing system ~~incorporating cognitive, psychophysical, and perceptual principles~~, comprising:  
one or more pre-processors,  
a processing engine with multiple processing units each re-parameterizing input variable to graded category variables to accomplish processing functions, the processing functions including such as color segmentation and grouping by similarities,  
a perceptual schema database, and  
an output generator that produces structured image data.
2. (Cancelled)
3. (Previously presented) The system of claim 1, wherein the system processes digital images in an adaptive fashion, with each processing unit making adjustments to the data in the schema and adapting the data adjustments made by other processing units in processing the digital image.
4. (Previously presented) The system of claim 1, wherein the processing units are inter-dependent with each processing unit employing output from other processing units and provides output for use by other processing units in their respective processing function.
- 5-10. (Cancelled)
11. (Presently Amended) A data structure stored on a computer-readable medium for describing ~~the~~ a perceptual data of ~~the~~ a digital image comprising:  
numeric data that describe the digital image;  
linguistic data that describe the digital image, the linguistic data including color segmentation;

indices that identify the numeric data and the linguistic data with each level of processing, the indices including such as ordinate level within schema structure, perceptual schema, and human categorization; and

labels that associate the numeric data and the linguistic data with perceptual concepts.

12. (Presently Amended) A method of query processing in an electronic image retrieval system, comprising:

receiving one or more query input describing the image in linguistic terms;  
translating the linguistic query input into a query image descriptor, the query image descriptor including color segmentation; that conforms to the schema of claim 2;  
comparing the query image descriptor to the image descriptor of images stored in a database; and  
retrieving the image with image descriptor that most closely matches the query image descriptor.

13. (Cancelled)